

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Previously presented): A system for assisting in the regeneration of depollution means associated with oxidation catalyst-forming means, and integrated in an exhaust line of a motor vehicle diesel engine and in which the engine is associated with common manifold means for feeding the cylinders of the engine with fuel, and adapted at constant torque to implement a regeneration strategy by injecting fuel into the cylinders in at least one post-injection operation, the system comprising:

- detector means for detecting a regeneration request and thus a request for post-injection;
- detector means for detecting a state of the foot being raised on the vehicle accelerator;
- temperature acquisition means for acquiring the temperature downstream from the catalyst-forming means;
- means for determining a maximum quantity of fuel to be injected in the post-injection operations during the period of returning to idling following the foot being raised on the accelerator, and on the basis of said temperature; and
- means for immediately interrupting the or each post-injection operation as soon as the quantity of fuel injected has reached the predetermined maximum quantity.

2. (Previously presented): A system according to claim 1, wherein the depollution means

comprise a particle filter.

3. (Previously presented): A system according to claim 1, wherein the depollution means comprise a NOx trap.

4. (Previously presented): A system according to claim 1, wherein the fuel includes an additive for being deposited, together with the particles with which it is mixed, on the depollution means in order to facilitate regeneration thereof.

5. (Previously presented): A system according to claim 1, wherein the fuel includes an additive forming a NOx trap.

6. (Previously presented): A system according to claim 1, wherein the engine is associated with a turbocharger.

7. (New): A system according to claim 2, wherein the depollution means comprise a NOx trap.

8. (New): A system according to claim 2, wherein the fuel includes an additive for being deposited, together with the particles with which it is mixed, on the depollution means in order to facilitate regeneration thereof.

9. (New): A system according to claim 3, wherein the fuel includes an additive for being deposited, together with the particles with which it is mixed, on the depollution means in order to facilitate regeneration thereof.

10. (New): A system according to claim 7, wherein the fuel includes an additive for being deposited, together with the particles with which it is mixed, on the depollution means in order to facilitate regeneration thereof.

11. (New): A method of assisting in the regeneration of a depollution apparatus associated with an oxidation catalyst, and integrated in an exhaust line of a motor vehicle diesel engine and in which the engine is associated with a common manifold for feeding the cylinders of the engine with fuel, and adapted at constant torque to implement a regeneration strategy by injecting fuel into the cylinders in at least one post-injection operation, the method comprising:

- detecting a regeneration request and thus a request for post-injection;
- detecting a state of the foot being raised on the vehicle accelerator;
- acquiring the temperature downstream from the catalyst;
- determining a maximum quantity of fuel to be injected in the post-injection operations during the period of returning to idling following the foot being raised on the accelerator, and on the basis of said temperature; and
- immediately interrupting the or each post-injection operation as soon as the quantity of

fuel injected has reached the predetermined maximum quantity.

12. (New): A method according to claim 11, wherein the depollution apparatus comprise a particle filter.

13. (New): A system according to claim 11, wherein the depollution apparatus comprise a NOx trap.

14. (New): A method according to claim 11, wherein the fuel includes an additive and the additive is deposited, together with the particles with which it is mixed, on the depollution apparatus in order to facilitate regeneration thereof.

15. (New): A method according to claim 11, wherein the fuel includes an additive forming a NOx trap.

16. (New): A method according to claim 11, wherein the engine is associated with a turbocharger.

17. (New): A system according to claim 12, wherein the depollution apparatus comprise a NOx trap.

18. (New): A method according to claim 12, wherein the fuel includes an additive and the additive is deposited, together with the particles with which it is mixed, on the depollution apparatus in order to facilitate regeneration thereof.

19. (New): A method according to claim 13, wherein the fuel includes an additive and the additive is deposited, together with the particles with which it is mixed, on the depollution apparatus in order to facilitate regeneration thereof.

20. (New): A method according to claim 17, wherein the fuel includes an additive and the additive is deposited, together with the particles with which it is mixed, on the depollution apparatus in order to facilitate regeneration thereof.